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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/671,250	09/28/2000	Michael C.G. Lee	78848-12	7465

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EXAMINER	
HO, THOMAS M	

ART UNIT	PAPER NUMBER
2134	

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/671,250	LEE, MICHAEL C.G.	
	Examin r	Art Unit	
	Thomas M Ho	2134	

-- Th MAILING DATE of this communication appears on the cov r she t with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *02 July 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-21 are pending.

Response to Arguments

2. Applicant has argued the following with regards to claim 1:

Applicant respectfully submits that Baum does not disclose an "application proxy", and, in fact teaches away from the use of an application proxy.

An applicant proxy, as taught by the present application, "operates at the upper levels of the protocol stack such as the application layer and presentation layer and provides proxy services on external networks for protected internal clients"(Page 7, Paragraph 2)

Applicant has similar arguments with regards to claim 12 and 17:

Applicant further recites the following in the arguments presented.

"...Baum expressly teaches away from the use of an application proxy." (3rd paragraph)

Baum discloses that:

"another possible approach to the problem which has been suggested is the use of a proxy server or proxy application for purposes of providing a firewall. However, while this might be considered for a very low number of users, latency increases exponentially as the number is increased. ***Application proxies would not be capable of handling the***

number of cells expected in this application except at prohibitive cost" *(Col 2, lines 28-35) (emphasis added) (Page 8, 3rd paragraph of arguments)*

"As noted above, anticipation is only established if all the elements of an invention, as stated in a patent claim, are identically set forth in a single prior art reference. However, Baum clearly does not disclose an "application proxy", and therefore does not anticipate claim 1."

The Examiner disagrees with the Applicant's assertion that Baum does not disclose an Application proxy. In fact, the Examiner would contend that Applicant's recitation of Baum (Col 2, lines 28-35) clearly discloses that Baum did in fact disclose an Application proxy.

Regardless of whether or not Baum teaches away from the use of an application proxy, the teaching of its use, and its disclosure of its usage is evidently present. Applicant has even provided specific emphasis to this fact by highlighting the text in the cited paragraph.

In light of Applicant's explicit citation and underlining of Baum's (Col 2, lines 28-35) Application proxy, the Examiner considers Applicant to be in agreement that the disclosure of the Application proxy itself is present. Baum teaches that an application proxy may be used under the stipulation that the cost is rendered to be prohibitively high. Nevertheless, an Application proxy is indeed disclosed by Baum, and the rejection under 35 USC 102(e) is maintained.

Further arguments of the dependent claims, rely on the merits of Applicants arguments of the rejection of the independent claims.

In light of the amendment made to claim 21, the rejection of claim 21 under 35 USC 112, second paragraph has been withdrawn.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, 4-6, 10-13, 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Baum et al., US Patent 6,400,707.

In reference to claim 1:

Baum et al. (Column 6, lines 51-62) & (Column 7, lines 42-52) & (Column 5, line 50 – Column 6, lines 8), discloses a firewall for Internet protocol packets carrying data for a real-time Internet application, each of said Internet protocol packets being associated with any one of a signaling channel, a control channel, or a barrier channel of said real time Internet application, the firewall comprising:

- An application proxy and a packet filter,
- The firewall applying the Internet protocol packets associated with the signaling channel and the control channel to the application proxy, and the firewall applying the Internet protocol packets associated with the bearer channel to the packet filter,

where the signaling channel is the channel which contains the Q.931 message (Column 6, lines 51-62) used to establish the connection, the control channels to the application proxy are the channels of data sent by the control processor, including the RS232 messages to reconfigure the packet filter (Column 7, lines 42-52), and the bearer channel contains the information of the transmission itself, the packets that are filtered, by the firewall packet filter. (Column 5, line 50 – Column 6, lines 8)

In reference to claim 2:

Baum et al. (Column 4, lines 15-21) disclose the firewall of claim 1 wherein said real-time Internet application is Voice over Internet Protocol (VoIP)

In reference to claim 4:

Baum et al. (Column 4, lines 15-21) discloses the firewall of claim 1 wherein said real-time Internet application is voice over Internet.

In reference to claim 5:

Baum et al. (Column 4, lines 15-21) discloses the firewall of claim 1 wherein said real-time Internet application is voice messaging over Internet, where the messages are sent in packets.

In reference to claim 6:

Baum et al. (Column 5, line 50 – Column 6, lines 8) & (Column 7, lines 42-52) discloses the firewall of claim 1 wherein the application proxy instructs the packet filter as to which Internet protocol packets associated with a particular bearer channel to enable and disable for the duration of a session of said real-time Internet application, where the application proxy instructs the filter by specifying which port, IP addresses, source, and destination to allow or disallow.

In reference to claim 10:

Baum et al. (Column 7, lines 42-52) discloses the firewall of claim 1 further including a control logic process for specifying the operating parameters of the firewall, where the control logic process is performed by the control processor.

In reference to claim 11:

Baum et al. (Column 3, lines 56-65) & (Figure 1) discloses the firewall of claim 1 wherein said application proxy and said packet filter are housed in any one of a dual homed commercial workstation, a general purpose workstation, a dedicated hardware firewall appliance, or an application specific integrated circuit, where the application

proxy and packet filter are housed in a general purpose workstation and application specific integrated circuit.

In reference to claim 12:

Baum et al. (Column 7, lines 15-52) discloses a method of protecting a computer network transmitting and receiving Internet protocol packets formatted in accordance with a real-time Internet protocol, each of said Internet protocol packets being associated with any one of a signaling channel, a control channel, or a bearer channel, the method comprising the steps of:

1. receiving a stream of Internet protocol packets, where the internet protocol packets are formatted by a protocol that identifies the packets into signaling, control, and B-channels.
2. applying the Internet protocol packets associated with the signaling channel and the control channel to the application proxy, where the application proxy is the gateway and control processor to analyze signaling packets and register the signal. (Column 6, line 66 - Column 7, line 16)
3. applying the internet protocol packets associated with the bearer channel to the packet filter, where the packet filter filters the packets of the B-channels which contain the actual transmission information for fast speed. (Column 7, lines 42-52)

In reference to claim 13:

Baum et al. (Column 7, lines 42-52) discloses the method of claim 12 further comprising the step of the application proxy instructing the packet filter as to which bearer channels to enable and disable for the duration of an Internet application session utilizing said real-time Internet protocol, where the application proxy instructs the packet filter as to which bearer channels to enable or disable by specifying the port, IP addresses, source, and destination.

Claim 17 is rejected for the same reasons as claim 12.

Claim 18 is rejected for the same reasons as claim 13.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3, 7-9, 14-16, 19-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Baum et al.

In reference to claim 3:

Baum et al. discloses all of claim 3 except wherein said real-time Internet application is fax over Internet.

The examiner takes official notice that real-time fax applications over the internet were well known to those in the art.

It would have been obvious to one of ordinary skill in the art at the time of inventions to have a firewall also filter faxes through the internet, in order to apply the same security measure to internet fax transmissions as one would with other kinds of internet transmissions.

In reference to claim 7:

Baum et al. fails to explicitly disclose the firewall of claim 1 further including a Network Address Translation (NAT) process to translate any Internet Protocol (IP) addresses, Transmission Control Protocol (TCP) port numbers or User Datagram Protocol (UDP) port numbers contained at layer 3 and later 4 of the Internet protocol packets associated with the signaling channel, the control channel and bearer channel.

The examiner takes official notice that use of NAT or Network Address Translation a process to translate any IP addresses, TCP port numbers, or UDP port numbers with any data packets was well known to those of ordinary skill in the art. NAT translation is necessary because local networks often have different differently assigned addresses than external networks such as the Internet. Furthermore, NAT is necessary for networks in which all traffic on a local network is to be directed through a single gateway such as a firewall. In these systems, a firewall itself may serve as the sole address, and may route

the data packets it receives by translating them into their respective local addresses before forwarding them to a computer on the LAN. Examples of these systems and the use of NAT is disclosed in

- US Patent 6,650,641
- US Patent 6,006,272
- US Patent 6,119,171
- US Patent 5,793,763

It would have been obvious to one of ordinary skill in the art at the time of invention to apply a Network Address Translation policy to translate any Internet Protocol (IP) addresses, Transmission Control Protocol (TCP) port numbers or User Datagram Protocol (UDP) port numbers contained at layer 3 and later 4 in order to allow Internet Protocol packets received from the outside to reach their destination, specifically by the proper ports and addresses, on the internal network guarded by the firewall.

In reference to claim 8:

Baum et al. fails to explicitly disclose the firewall of claim 1 further including a Network Address Translation (NAT) process to translate any Internet Protocol (IP) addresses, Transmission Control Protocol (TCP) port numbers of User Datagram Protocol UDP port numbers contained at layer 7 of the Internet protocol packets associated with the signaling channel and the control channel.

With regards to the official notice as taken above, it would have been obvious to one of ordinary skill in the art at the time of invention to translate any Internet Protocol (IP) addresses, Transmission Control Protocol (TCP) port numbers or User Datagram Protocol (UDP) port numbers contained at layer 7 in order to allow Internet Protocol packets received from the outside to reach their destination, specifically by the types of content and session request such as FTP, gopher, or telnet, on the internal network guarded by the firewall.

In reference to claim 9:

Baum et al. fails to explicitly disclose the firewall of claim 8 wherein said application proxy instructs said NAT process to operate for the direction of a session of said real-time Internet application independent of data traffic flow.

With regards to the official notice as taken above, it would have been obvious to one of ordinary skill in the art at the time of invention to apply a Network Address Translation policy to the firewall of Baum in order to allow Internet Protocol packets received from the outside to reach their destination on the internal network guarded by the firewall.

Claim 14 is rejected for the same reasons as claim 7.

Claim 15 is rejected for the same reasons as claim 8.

Claim 16 is rejected for the same reasons as claim 9.

Claim 19 is rejected for the same reasons as claim 14.

Claim 20 is rejected for the same reasons as claim 15.

Claim 21 is rejected for the same reasons as claim 16.

Conclusion

7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of the final action and the advisory action is not mailed under after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension pursuant to 37 CFR 1.136(A) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication from the examiner should be directed to Thomas M Ho whose telephone number is (571)272-3835. The examiner can normally be reached on M-F from 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A. Morse can be reached on (571)272-3838.

The Examiner may also be reached through email through Thomas.Ho6@uspto.gov

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

General Information/Receptionist	Telephone: 571-272-2100	Fax: 703-872-9306
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TMH

January 18th, 2005

GREGORY MORSE
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